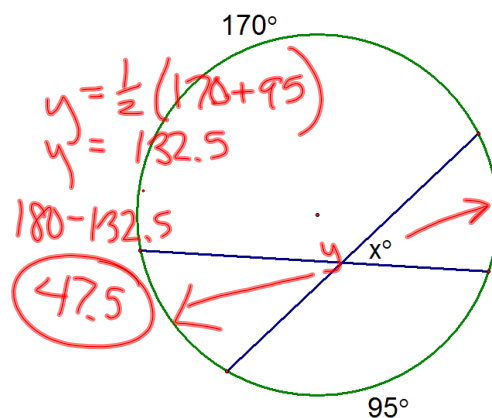
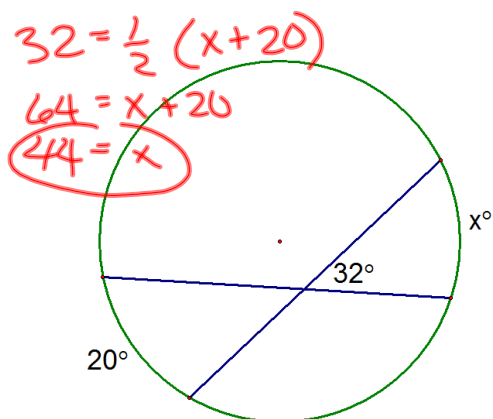
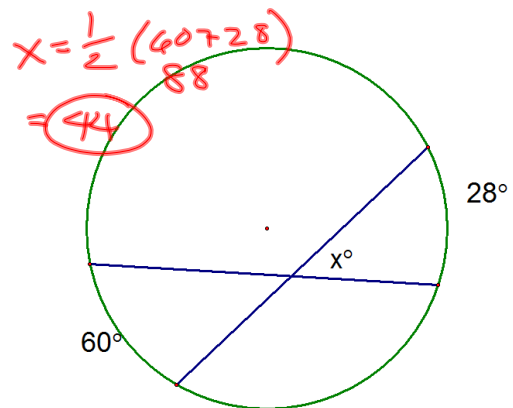
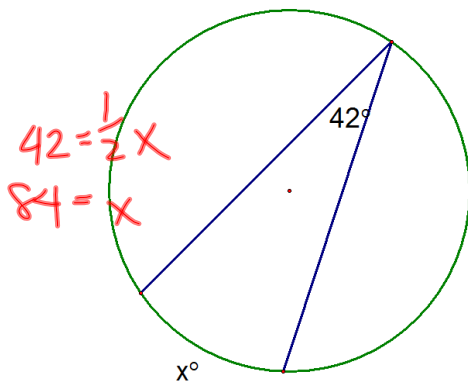
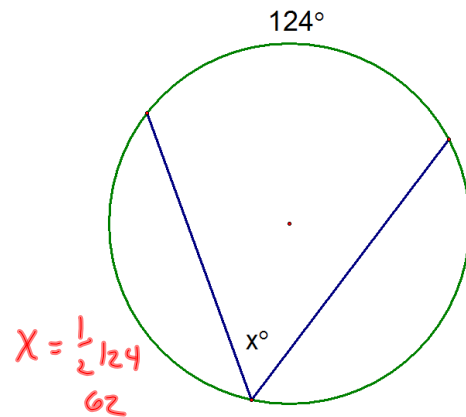
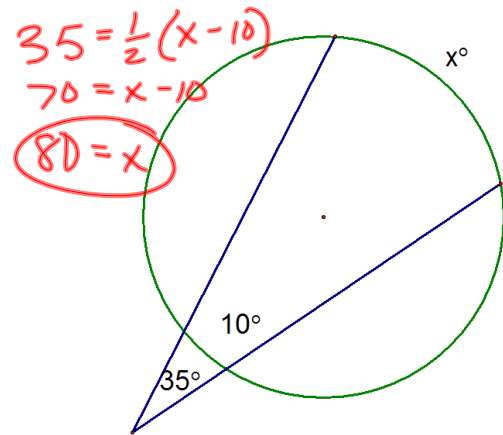
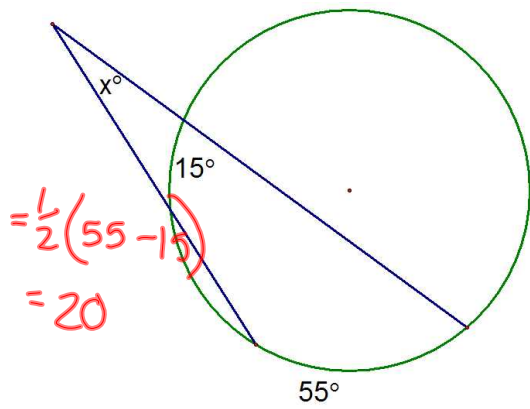


Solve for x unless directed otherwise.

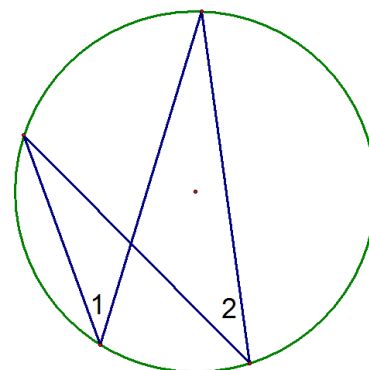
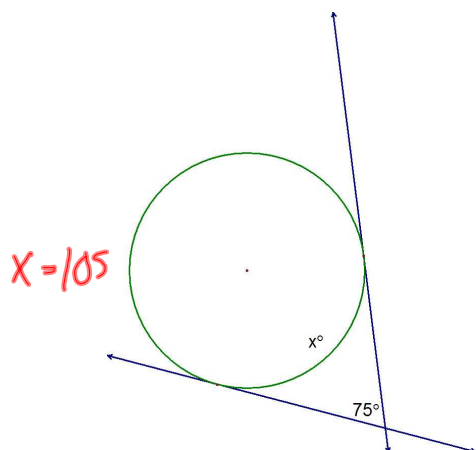
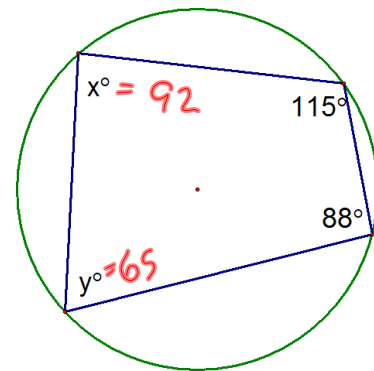
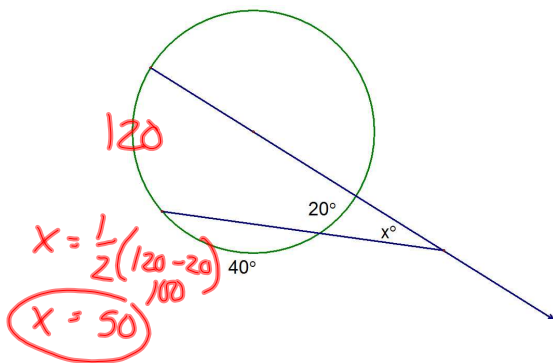
Segments that appear to be tangent are tangent.

Pictures are not drawn to scale.





Diameter



$$\begin{aligned}
 m\angle 1 &= 5x \\
 m\angle 2 &= 3x + 20 \\
 m\angle 3 &= 50
 \end{aligned}$$

$$\begin{aligned}
 5x &= 3x + 20 \\
 2x &= 20 \\
 x &= 10
 \end{aligned}$$

